Claims 1-24 are again rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,822,309 to Ayanoglu et al. As discussed in more detail below, this rejection is again respectfully traversed.

Specifically, Applicant respectfully submits that unlike the embodiments of the present invention as defined in independent claims 1, 9 and 17, the Ayanoglu patent fails to teach or suggest a node (claim 1), adapted for use in a wireless communication system, that is capable of determining *its own mobility*, as well as a method (claim 9) or a computer readable medium of instructions (claim 17) that provides such a node with this capability. Applicant appreciates the Examiner's comments concerning the transmission of virtual channel identifiers (VCIs) between nodes. However, Applicant respectfully submits that the use of VCIs does not relate to the "mobility factor" explicitly recited in independent claims 1, 9 and 17, in particular, the ability of a node to determine *its own mobility*, that is, rate of movement (e.g., stationary, slow or fast) and to control the rate at which it transmits information about itself (e.g., routing table information) based on the rate at which it is moving.

As discussed in the Remarks of the previous Response, the present invention provides a system, method and computer readable medium of instructions capable of determining the mobility of a node in a network, such as a wireless ad-hoc network that requires the node to share its information with other nodes, so that the rate at which the node shares this information could be based on the rate of mobility of the node, to thus enable the nodes to share their information with other nodes more economically from a bandwidth usage standpoint. Independent claim 1 defines

an embodiment of the present invention as a node that is adapted for use in a wireless communications network and capable of determining *its own* mobility. The wireless communications network comprises a plurality of other nodes, at least some of which are stationary. The node is defined as comprising a transceiver and a controller. The transceiver is adapted to communicate or attempt to communicate with at least one of the stationary other nodes in the network. The controller determines a mobility factor *of the node based on the communication or attempted communication with the stationary other node.* The controller then controls a rate at which the transceiver sends information pertaining to the node to at least one of the other nodes in the network based on the mobility factor. In other words, the controller *of the node* performs the mobility factor calculation *based on a transmission by the node to at least one stationary node in the network.* Independent claim 9 defines a method including steps for performing these operations, and independent claim 17 defines a computer readable medium of instructions for performing these operations.

The Ayanoglu patent teaches signaling and control architecture for an ad-hoc ATM LAN. As discussed previously, the ATM LAN is capable of performing "mobility management techniques" for handling mobile sign-ons and idle handoffs, to locate mobile users during connection and setup, and to perform handoffs when a mobile is actively involved in a connection.

Applicant further respectfully submits that although the Ayanoglu patent uses the term "ad-hoc network", the network taught by the Ayanoglu patent is actually an ATM network with wireless access as opposed to a true mobile ad-hoc network. Specifically, Applicant respectfully submits

that the term "ad-hoc" as used in the Ayanoglu patent relates to the topology of a network of ATM switches. As can be appreciated by one skilled in the art, in a typical ATM network, the switches are set up in a specific topology and the switches know how to route to each other based on the topology. On the contrary, in the network taught by the Ayanoglu patent, the switches are set up in a non-specific manner and an algorithm is used to determine how the switches are to interconnect. The VCI provides a virtual connection between any two switches that must be maintained in order to adhere to the ATM protocols, especially in relation to QOS issues. The VCI may pass through one or more of the other switches as it traverses from origin to destination, and the links between the switches can be wire or free space optics.

Applicant respectfully submits that at best, the arrangement of switches in the Ayanoglu network could be construed as access points (APs) and the way that the APs are interconnected over a backbone, and the "mobility" relates to the manner in which a wireless mobile connects to a switch, as well as the manner in which the mobile connects to another switch when it moves. Applicant again respectfully submits that this arrangement is not an ad-hoc network as the term is known in the art. For example, nowhere does the Ayanoglu patent teach or suggest multi-hopping between terminals and routing which includes the sharing of routing information between terminals and the use such information to communicate between terminals over multiple hops, as would occur in an ad-hoc network. On the contrary, in a dynamic ad-hoc network, terminals continuously update their own routing tables and share this information with other terminals so that the other terminals can make the appropriate routing decisions. This sharing of routing tables depletes

precious bandwidth in the network and hence, the claimed embodiments of the present invention attempt to share this information more efficiently by basing the rate on which a terminal shares this information on the terminal's own mobility. By doing this assessment, the terminal will transmit its routing information less frequently when possible (i.e., when the terminal is stationary or moving slowly) and thus use less of the network's bandwidth resources.

The Examiner contends that column 4, line 59 through column 5, line 64, column 8, lines 36-57 and column 9, lines 13-42 of the Ayanoglu patent teach the features of the controller as recited in independent claim 1 of the present application as discussed above. Applicant respectfully disagrees. Again, although these passages of the Ayanoglu patent use the term "mobility", Applicant respectfully submits that the "mobility" which the Ayanoglu patent describes does not relate to the "mobility factor" (the rate of movement of the node) that is determined for a node so that the rate of transmission by that node can be based on that mobility factor as in the claimed embodiments of the present invention. Granted, as the Examiner explains, VCIs can be used along with the virtual path identifiers (VPIs) to ascertain routing paths. However, Applicant respectfully submits that in no way do the VCIs or VPIs enable a node to ascertain *its own mobility or rate of movement*, and then base its rate of communication on that rate of movement.

For these reasons, Applicant respectfully submits that the Ayanoglu patent does not anticipate the embodiments of the invention as recited even in independent claims 1, 9 and 17. Furthermore, since the operations performed by the Ayanoglu network, even including the use of VCIs and VPIs, are so unlike the mobility determining operations of the claimed embodiments of

the present invention, Applicant respectfully submits that one skilled in the art would not have found even the embodiments of the present invention recited in independent claims 1, 9 and 17 obvious. Applicant also reiterates the reasons for allowability of the dependent claims as set forth in the previous Response.

Specifically, Applicant submits that even if the Ayanoglu patent teaches the use of VCIs, the patent fails to teach or suggest that the determined mobility factor represents a *rate* of mobility of the node as recited in claims 2, 10 and 18, and that the rate at which the controller controls the transceiver to send the information is *proportional* to the rate of mobility as recited in claims 3, 11 and 19. Column 4, line 59 through column 5, line 64, which are cited against claims 2, 10 and 18, are deficient for the reasons discussed above with regard to claims 1, 9 and 17, and column 8, lines 36-57 and column 11, line 1 through column 12, line 10, which are cited against claims 3, 11 and 19, are deficient for the reasons discussed above, and also, because columns 11 and 12 merely describe QoS checking by the PBSs.

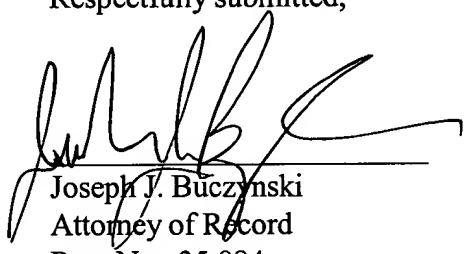
Furthermore, even if the Ayanoglu patent teaches the use of VCIs, the patent fails to teach or suggest that the communication by the transceiver with at least one other stationary node enables the node to determine its distance to the at least one other stationary node as explicitly recited in claims 4, 12 and 20, and that the *attempted* communication by the transceiver with at least one other stationary node enables the node to determine whether the at least one other stationary node is a within a transmission range of the node as recited in claims 5, 13 and 21. Column 13, line 53 through column 14, line 3, which are cited against claims 4, 5, 12, 13, 20 and 21, merely include the

statement that information may be routed directly through the two mobiles if they are within listening distance of each other. This passage does not involve a distance check between the node, whose mobility factor is being determined, and a stationary node.

Also, the Ayanoglu patent does not teach or suggest a network having the limitations recited in independent claims 1, 9 and 17 where at least one of its stationary nodes includes a stationary router that is adapted to route data packets which it receives that are addressed to other nodes to those other nodes as recited in claims 6, 14 and 22. Rather, column 6, lines 11-40 involve the routing of ATM cells. In addition, nowhere does the Ayanoglu patent teach or suggest a network having the limitations recited in independent claims 1, 9 and 17 where at least one of the stationary nodes includes an access point that provides the node and other nodes with access to another portion of the network and/or another different network as recited in claims 7, 15 and 23, nor does it teach or suggest that such a network having these limitations includes an ad-hoc network as recited in claims 8, 16 and 24. Granted, column 3, line 47 states that the PBSs can employ "and ad-hoc networking layout". However, nowhere does this or any other passage of the Ayanoglu patent teach or suggest that the network has the ability to determine the mobility factor of a node as recited in independent claims 1, 9 and 17, in addition to the features mentioned above as recited in claims 7, 8, 15, 16, 23 and 24.

In view of the above, it is believed that the application is in condition for allowance and notice to this effect is respectfully requested. Should the Examiner have any questions, the Examiner is invited to contact the undersigned at the telephone number indicated below.

Respectfully submitted,



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